CLAIMS

1. An optical element for a liquid crystal display device, comprising:

a polarizer for converting light emitted from a back light source to linearly polarized light;

a reflecting layer comprising a reflection area part for reflecting the linearly polarized light converted by the polarizer and a transmission area part for transmitting the linearly polarized light converted by the polarizer; and

at least one phase difference plate which is disposed so that only the light transmitted through the transmission area part after conversion of the light source-derived light to the linearly polarized light by the polarizer is incident to said phase difference plate.

2. An optical element for a liquid crystal display device, comprising:

a polarizer for converting light from a front light source to linearly polarized light;

a reflection area part for reflecting the linearly polarized light converted by the polarizer; and

at least one phase difference plate which is disposed so that only the light reflected from the reflection area part is incident to said phase difference plate.

3. The optical element according to claim 2, wherein the optical distance between the reflection area part and the phase difference plate is regulated by the thickness of the phase difference plate.

4. The optical element according to any one of claims 1 to 3, wherein at least one phase difference plate, in which, when the refractive indexes in the

orthogonal axis direction within a plane of the phase difference plate are n_x and n_y and the refractive index of the phase difference plate in its plate thickness-wise direction is n_z, a relationship represented by formula $n_X \neq n_Y$ is satisfied, is included in the phase difference plate.

5. The optical element according to claim 4, wherein at least one phase difference plate satisfying a relationship represented by formula $n_X = n_Y \neq n_Z$ is included in the phase difference plate.

6. The optical element according to any one of claims 1 to 3, wherein said phase difference plate is integral with an absorption-type color filter layer.

7. The optical element according to any one of claims 1 to 3, wherein said phase difference plate comprises a substrate having an aligning ability and a polymerizable liquid crystal layer provided on the substrate.

8. The optical element according to claim 7, wherein the tilt angle of molecules constituting the polymerizable liquid crystal layer is substantially identical to that of liquid crystal molecules within a liquid crystal cell.

9. The optical element according to claim 7, wherein said polymerizable liquid crystal layer has been formed by coating a coating liquid containing polymerizable liquid crystal molecules, a photoinitiator, a surfactant, and a solvent onto said substrate.

10. The optical element according to claim 7, wherein said polymerizable liquid crystal can form a

nematic phase or a cholesteric phase.

11. The optical element according to claim 1, wherein a high-reflectance layer is provided on the whole area of the reflecting layer on its back light source side.

12. The optical element according to claim 11, wherein said reflecting layer is a light-shielding layer or/and a reflecting electrode.

13. The optical element according to claim 11, wherein said high-reflectance layer is formed of at least one material selected from the group consisting of aluminum (Al), silver (Ag), and silver alloys.

14. The optical element according to claim 11, wherein said high-reflectance layer is formed of a dielectric multilayer film.

15. A liquid crystal display device comprising the optical element according to any one of claims 1 to 3.

16. A semitransmission-type liquid crystal display device comprising the optical element according to any one of claims 1 to 3, said liquid crystal layer being a birefringence-mode liquid crystal layer.

17. The semitransmission-type liquid crystal display device according to claim 16, wherein liquid crystal molecules constituting the birefringence-mode liquid crystal layer are aligned perpendicularly to the liquid crystal cell face when no voltage is applied.